SONY

0-542-035-31 (1)

Trinitron® Color Computer Display

Operating Instructions US

CPD-110GS
CPD-210GS

© 1998 by Sony Corporation

Owner's Record

The model and serial numbers are located at the rear of the unit. Record these numbers in the spaces provided below. Refer to them whenever you call upon your dealer regarding this product.

Model No._____ Serial No. _____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.
Dangerously high voltages are present inside the unit. Do not open the cabinet. Refer servicing to qualified personnel only.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

IMPORTADOR (Para Mexico unicamente/For Mexico only)

Sony Electronicos de Mexico, S.A. de C.V.
Henry Ford No.2S
Fraccionamiento San Nicolas, Tlalnepantla
Estado de Mexico, CP54030
Tel.: 321-1000
R.F.C. SEM-941001-BJA

IMPORTANTE

Para prevenir cualquier mal funcionamiento y evitar daños, por favor, lea detalladamente este manual de instrucciones antes de conectar y operar este equipo.

INFORMATION
This product complies with Swedish National Council for Metrology (MPR) standards issued in December 1990 (MPR II) for very low frequency (VLF) and extremely low frequency (ELF).

INFORMATION
Ce produit est conforme aux normes du Swedish National Council for Metrology de décembre 1990 (MPR II) en ce qui concerne les fréquences très basses (VLF) et extrêmement basses (ELF).

Hinweis
Dieses Gerät erfüllt bezüglich tieffrequenter (very low frequency) und tiefstfrequenter (extremely low frequency) Strahlung die Vorschriften des „Swedish National Council for Metrology (MPR)" vom Dezember 1990 (MPR II).

INFORMACIÓN
Este producto cumple las normas del Consejo Nacional Sueco para Metrología (MPR) emitidas en diciembre de 1990 (MPR II) para frecuencias muy bajas (VLF) y frecuencias extremadamente bajas (ELF).

Dieses Garät entspricht den folgenden europäischen EMV-Vorschriften für Betrieb in Wohngebieten, gewerblicher Gebleten und Leichtindustriegebieten.

EN55022/1994 Klasse B
EN50082-1/1992
EN61000-3-2/1995

Hinweise

- Aus ergonomischen Gründen wird empfohlen, die Grundfarbe Blau nicht auf dunklem Untergrund zu verwenden (schlechte Erkennbarkeit, Augenbelastung bei zu geringem Zeichenkontrast).
- Aus ergonomischen Gründen (flimmer[illegible]iten nur Darstellungen bei Vertikalfrequenzen a[illegible] Hz (ohne Zeilensprung) verwendet werden.
- Die Konvergenz des Bildes kann sich a[illegible]rund des Magnetfeldes am Ort der Aufstellung a[illegible]er korrekten Grundeinstellung verändern. Zur Kor[illegible] empfiehlt es sich deshalb, die Regler an der Frontseite [illegible]onvergenz so einzustellen, daß die getrennt sichtba[illegible] Farblinien für Rot, Grün und Blau bei z.B. der Darstell[illegible]eines Buchstabens zur Deckung (Konvergenz) gelang[illegible]
  Siehe hierzu auch die Erklärunge[illegible] Konvergenz.

NOTICE

This notice is applicable for USA/Canada only.
If shipped to USA/Canada, install only a UL LISTED/CSA LABELLED power supply cord meeting the following specifications:
SPECIFICATIONS

Plug Type	Nema-Plug 5-15p
Cord	Type SVT or SJT, minimum 3 x 18 AWG
Length	Maximum 15 feet
Rating	Minimum 7 A, 125 V

NOTICE

Cette notice s'applique aux Etats-Unis et au Canada uniquement.
Si cet appareil est export* aux Etats-Unis ou au Canada, utiliser le cordon d'alimentation portant la mention UL LISTED/CSA LABELLED et remplissant les conditions suivantes:
SPECIFICATIONS

Type de fiche	Fiche Nema 5-15 broches
Cordon	Type SVT ou SJT, minimum 3 x 18 AWG
Longueur	Maximum 15 pieds
Tension	Minimum 7 A, 125 V

As an ENERGY STAR Partner, Sony Corporation has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

This monitor complies with the TCO 1992 guidelines for power saving when used with a computer equipped with VESA Display Power Management Signaling (DPMS).

Declaration of Conformity

Trade Name:	Sony
Model No.:	CPD-110GS, CPD-210GS
Responsible Party:	Sony Electronics Inc.
Address:	1 Sony Drive, Park Ridge, NJ. 07656 USA
Telephone No.:	201-930-6970

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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US

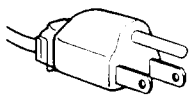
- Trinitron® is a registered trademark of Sony Corporation.
- Macintosh is a trademark licensed to Apple Computer, Inc., registered in the U.S.A. and other countries.
- Windows® and MS-DOS are registered trademarks of Microsoft Corporation in the United States and other countries.
- IBM PC/AT and VGA are registered trademarks of IBM Corporation of the U.S.A.
- VESA and DDC™ are trademarks of the Video Electronics Standard Association.
- ENERGY STAR is a U.S. registered mark.
- All other product names mentioned herein may be the trademarks or registered trademarks of their respective companies.
- Furthermore, "™" and "®" are not mentioned in each case in this manual.

Precautions

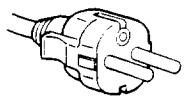
Warning on power connections

- Use the supplied power cord. If you use a different power cord, be sure that it is compatible with your local power supply.
  For the customers in the U.S.A.
  If you do not use the appropriate cord, this monitor will not conform to mandatory FCC standards.

  Example of plug types



for 100 to 120 V AC



for 200 to 240 V AC

- Before disconnecting the power cord, wait at least 30 seconds after turning off the power to allow the static electricity on the screen's surface to discharge.
- After the power is turned on, the screen is demagnetized (degaussed) for about 5 seconds. This generates a strong magnetic field around the screen which may affect data stored on magnetic tapes and disks placed near the monitor. Be sure to keep magnetic recording equipment, tapes, and disks away from the monitor.

The equipment should be installed near an easily accessible outlet.

Installation

Do not install the monitor in the following places:

- on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies, etc.) that may block the ventilation holes
- near heat sources such as radiators or air ducts, or in a place subject to direct sunlight
- in a place subject to severe temperature changes
- in a place subject to mechanical vibration or shock
- on an unstable surface
- near equipment which generates magnetism, such as a transformer or high voltage power lines
- near or on an electrically charged metal surface

Maintenance

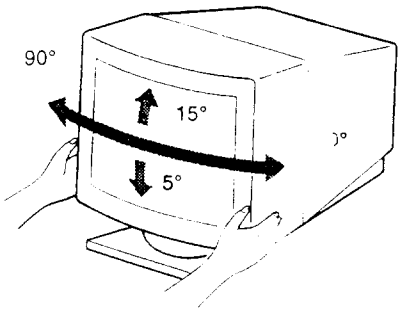
- Clean the screen with a soft cloth. If you use a glass cleaning liquid, do not use any type of cleaner containing an anti-static solution or similar additive as this may scratch the screen's coating.
- Do not rub, touch, or tap the surface of the screen with sharp or abrasive items such as a ballpoint pen or screwdriver. This type of contact may result in a scratched picture tube.
- Clean the cabinet, panel and controls with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent, such as alcohol or benzene.

Transportation

When you transport this monitor for repair or shipment, use the original carton and packing materials.

Use of the tilt-swivel

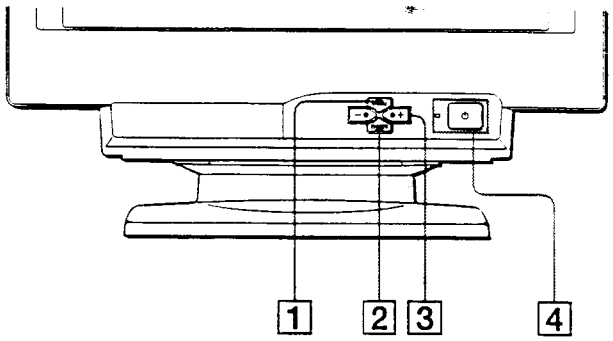
This monitor can be adjusted within the angles shown below. To turn the monitor vertically or horizontally, hold it at the bottom with both hands.



Identifying parts and controls

See the pages in parentheses for further details.

Front



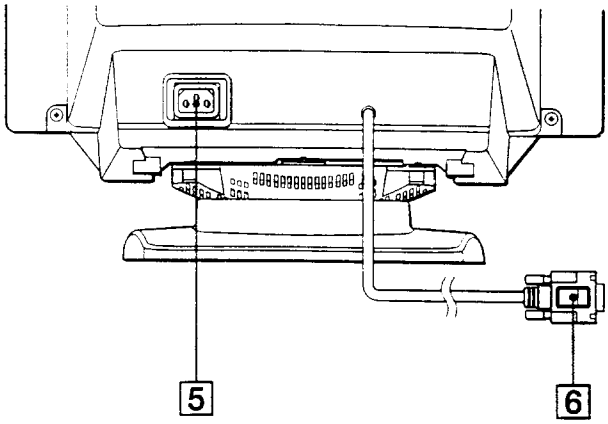
1 MENU button (page 9)
This button displays the MENU OSD.

2 ENTER button (page 9)
This button selects the menu and adjustment items.

3 ◑ (contrast) +/– buttons (page 9)
These buttons display the CONTRAST/BRIGHTNESS menu and function as the +/– buttons when adjusting other items.

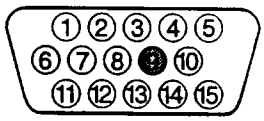
4 ⏻ (power) switch and indicator (pages 6, 13, 16)
This button turns the monitor on and off. The power indicator lights up in green when the monitor is turned on, and either flashes in green and orange, or lights up in orange when the monitor is in power saving mode.

Rear



5 AC IN connector (page 6)
This connector provides AC power to the monitor.

6 Video input connector (HD15) (page 6)
This connector inputs RGB video signals (0.700 Vp-p, positive) and sync signals.



Pin No.	Signal
1	Red
2	Green
3	Blue
4	ID (Ground)
5	DDC Ground*
6	Red Ground
7	Green Ground
8	Blue Ground
9	–
10	Ground
11	ID (Ground)
12	Bi-Directional Data (SDA)*
13	H. Sync
14	V. Sync
15	Data Clock (SCL)*

* DDC (Display Data Channel) is a standard of VESA.

US

Setup

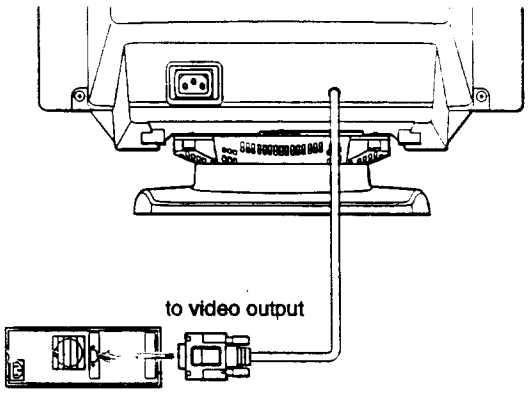
Before using your monitor, check that the following accessories are included in your carton:

- Power cord (1)
- Windows Monitor Information Disk (1)
- Warranty card (1)
- Notes on cleaning the screen's surface (1)
- This instruction manual (1)

Step 1: Connect your monitor to your computer

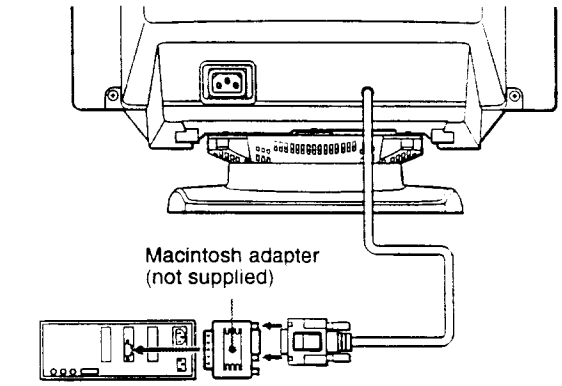
Turn off the monitor and computer before connecting.

■ Connecting to an IBM PC/AT or compatible computer



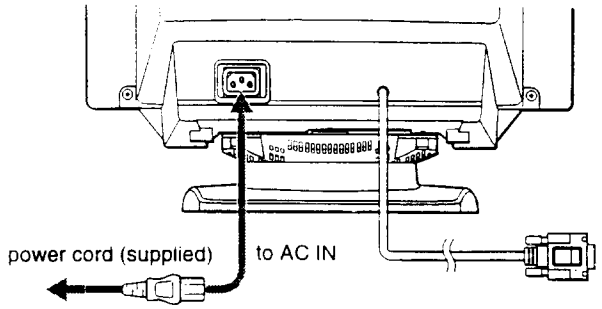
■ Connecting to a Macintosh or compatible computer

You will need a Macintosh adapter (not supplied).



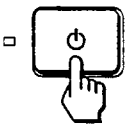
Step 2: Connect the power cord

With the monitor and computer switched off, first connect the power cord to the monitor, then connect it to a power outlet.



Step 3: Turn on the monitor and computer

First turn on the monitor, then turn on the computer.



The installation of your monitor is complete.
If necessary, use the monitor's controls to adjust the picture.

If no picture appears on your screen

- Check that the monitor is correctly connected to the computer.
- If NO INPUT SIGNAL appears on the screen, confirm that your computer's graphic board is completely seated in the correct bus slot.
- If you are replacing an old monitor with this model and OUT OF SCAN RANGE appears on the screen, reconnect the old monitor. Then adjust the computer's graphic board so that the horizontal frequency is between 30 – 70 kHz, and the vertical frequency is between 48 – 120 Hz.

For more information about the on-screen messages, see "Trouble symptoms and remedies" on page 14.

For customers using Windows 95/98

To maximize the potential of your monitor, install the new model information file from the supplied Windows Monitor Information Disk onto your PC.

This monitor complies with the "VESA DDC" Plug & Play standard. If your PC/graphics board complies with DDC, select "Plug & Play Monitor (VESA DDC)" or this monitor's model name as the monitor type in the "Control Panel" of Windows 95/98. If your PC/graphics board has difficulty communicating with this monitor, load the Windows Monitor Information Disk and select this monitor's model name as the monitor type.

For customers using Windows NT4.0

Monitor setup in Windows NT4.0 is different from Windows 95/98 and does not involve the selection of monitor type. Refer to the Windows NT4.0 instruction manual for further details on adjusting the resolution, refresh rate, and number of colors.

Adjusting the monitor's resolution and color number

Adjust the monitor's resolution and color number by referring to your computer's instruction manual. The color number may vary according to your computer or video board. The color palette setting and the actual number of colors are as follows:

- High Color (16 bit) → 65,536 colors
- True Color (24 bit) → about 16.77 million colors

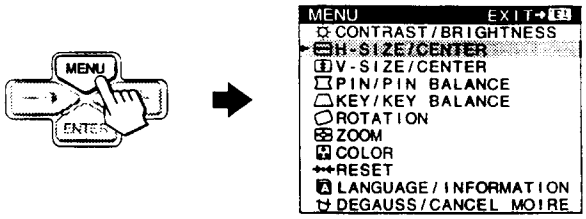
In true color mode (24 bit), speed may be slower.

Selecting the on-screen menu language (LANGUAGE/ INFORMATION)

English, French, German, Spanish, and Italian versions of the on-screen menus are available. The default setting is English.

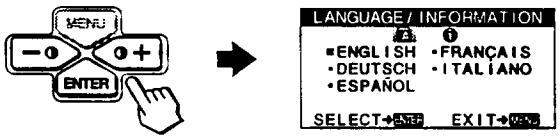
1 Press the MENU button.

See page 9 for more information on using the MENU button.



2 Press the +/– buttons to highlight LANGUAGE/ INFORMATION and press the ENTER button.

See page 9 for more information on using the +/– and ENTER buttons.



3 Press the ENTER button to select (LANGUAGE) and press +/– buttons to select a language.

- ENGLISH
- FRANÇAIS: French
- DEUTSCH: German
- ESPAÑOL: Spanish
- ITALIANO: Italian

To close the menu

Press the MENU button once to return to the main menu, and twice to return to normal viewing. If no buttons are pressed, the menu closes automatically after about 30 seconds.

To reset to English

See "Resetting the adjustments (RESET)" on page 12.

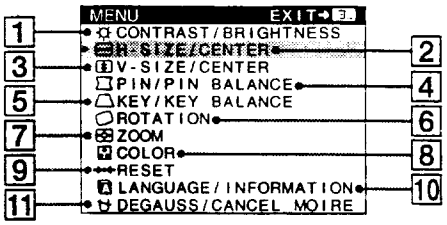
US

Customizing Your Monitor

You can make numerous adjustments to your monitor using the on-screen menu.

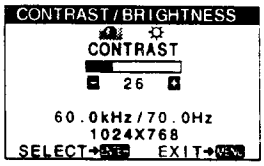
Navigating the menu

Press the MENU button to display the main MENU on your screen. See page 9 for more information on using the MENU button.

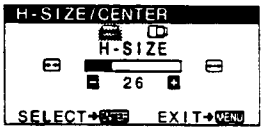


Use the +/– and ENTER buttons to select one of the following menus. See page 9 for more information on using the +/– and ENTER buttons.

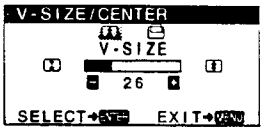
1 CONTRAST/BRIGHTNESS (page 9)
Select the CONTRAST/BRIGHTNESS menu to adjust the picture's contrast and brightness.



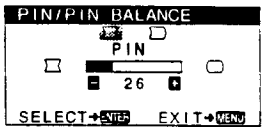
2 H-SIZE/CENTER (page 10)
Select the H-SIZE/CENTER menu to adjust the picture's horizontal size and centering.



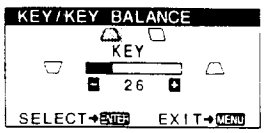
3 V-SIZE/CENTER (page 10)
Select the V-SIZE/CENTER menu to adjust the picture's vertical size and centering.



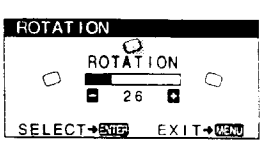
4 PIN/PIN BALANCE (page 10)
Select the PIN/PIN BALANCE menu to adjust the curvature picture's sides.



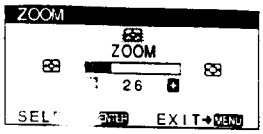
5 KEY/KEY BALANCE (page 10)
Select the KEY/KEY BALANCE menu to adjust the angle of the picture's sides.



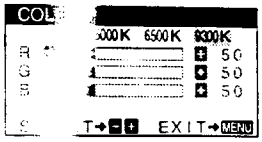
6 ROTATION (page 11)
Select the ROTATION menu to adjust the picture's rotation.



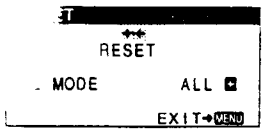
7 ZOOM (page 11)
Select the ZOOM menu to enlarge or reduce the picture.



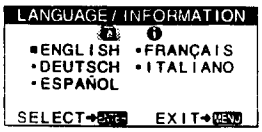
8 COLOR (page 11)
Select the COLOR menu to adjust the picture's color temperature. You can use this to match the monitor's colors to a printed picture's colors.



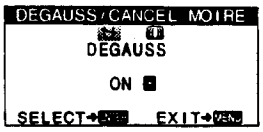
9 RESET (page 12)
Select the RESET menu to reset the adjustments.



10 LANGUAGE/INFORMATION (page 7, 15)
Select the LANGUAGE/INFORMATION menu to choose the on-screen menu's language and display this monitor's information box.

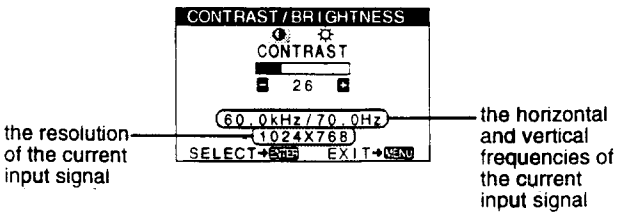


11 DEGAUSS/CANCEL MOIRE (page 12)
Select the DEGAUSS/CANCEL MOIRE menu to degauss the screen and cancel the moire.



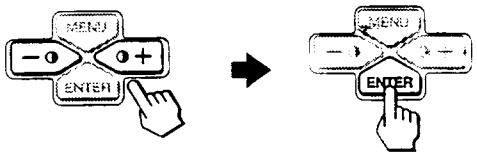
■ Displaying the current input signal

The horizontal and vertical frequencies of the current input signal are displayed in the CONTRAST/BRIGHTNESS menu. If the signal matches one of this monitor's factory preset modes, the resolution is also displayed.

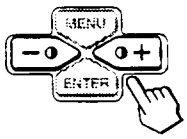


■ Using the MENU, ENTER, and +/– buttons

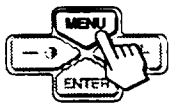
1 Select the menu you want to adjust.
Press the +/– buttons to highlight the desired menu. Press the ENTER button to select the menu and adjustment items.



2 Adjust the menu.
Press the +/– buttons to make the adjustment.



3 Close the menu.
Press the MENU button once to return to the main menu, and twice to return to normal viewing. If no buttons are pressed, the menu closes automatically after about 30 seconds.



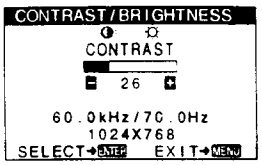
■ Resetting the adjustments

You can reset the adjustments using the RESET menu. See page 12 for more information on resetting the adjustments.

Adjusting the contrast and brightness (CONTRAST/ BRIGHTNESS)

These settings are stored in memory for all input signals.

1 Press either one of the ◑ (CONTRAST) +/– buttons.
The CONTRAST/BRIGHTNESS menu appears on the screen.



2 Press the ENTER button to select ◑ (CONTRAST) or ☼ (BRIGHTNESS).

3 Press the +/– buttons to adjust either the contrast (◑) or brightness (☼).
The menu automatically disappears after about 30 seconds.

US

Adjusting the horizontal size or centering of the picture (H-SIZE/ CENTER)

These settings are stored in memory for the current input signal.

1 **Press the MENU button.**
The main MENU appears on the screen.

2 **Press the +/– buttons to highlight H-SIZE/ CENTER, and press the ENTER button.**
The H-SIZE/CENTER menu appears on the screen.

3 **First press the ENTER button to select the desired adjustment item. Then press the +/– buttons to make the adjustment.**

Select	To
H-SIZE	adjust the horizontal size
H-CENTER	adjust the horizontal centering

Adjusting the vertical size or centering of the picture (V-SIZE/ CENTER)

These settings are stored in memory for the current input signal.

1 **Press the MENU button.**
The main MENU appears on the screen.

2 **Press the +/– buttons to highlight V-SIZE/ CENTER, and press the ENTER button.**
The V-SIZE/CENTER menu appears on the screen.

3 **First press the ENTER button to select the desired adjustment item. Then press the +/– buttons to make the adjustment.**

Select	To
V-SIZE	adjust the vertical size
V-CENTER	adjust the vertical centering

Adjusting the curvature of the picture's sides (PIN/PIN BALANCE)

These settings are stored in memory for the current input signal.

1 **Press the MENU button.**
The main MENU appears on the screen.

2 **Press the +/– buttons to highlight PIN/PIN BALANCE, and press the ENTER button.**
The PIN/PIN BALANCE menu appears on the screen.

3 **First press the ENTER button to select the desired adjustment item. Then press the +/– buttons to make the adjustment.**

Select	To
PIN	expand or contract the picture sides
PIN BALANCE	shift the picture sides to the left or right

Adjusting the angle of the picture's sides (KEY/KEY BALANCE)

These settings are stored in memory for the current input signal.

1 **Press the MENU button.**
The main MENU appears on the screen.

2 **Press the +/– buttons to highlight KEY/KEY BALANCE, and press the ENTER button.**
The KEY/KEY BALANCE menu appears on the screen.

3 **First press the ENTER button to select the desired adjustment item. Then press the +/– buttons to make the adjustment.**

Select	To
KEY	adjust the picture width at the top of the screen
KEY BALANCE	shift the picture to the left or right at the top of the screen

Adjusting the picture's rotation (ROTATION)

This setting is stored in memory for all input signals.

1 **Press the MENU button.**
The main MENU appears on the screen.

2 **Press the +/– buttons to highlight ROTATION, and press the ENTER button.**
The ROTATION menu appears on the screen.

3 **Press the +/– buttons to rotate the picture.**

Enlarging or reducing the picture (ZOOM)

This setting is stored in memory for the current input signal.

1 **Press the MENU button.**
The main MENU appears on the screen.

2 **Press the +/– buttons to highlight ZOOM and press the ENTER button.**
The ZOOM menu appears on the screen.

3 **Press the +/– buttons to enlarge or reduce the picture.**

Note
Adjustment stops when either the horizontal or vertical size reaches its maximum or minimum value.

Adjusting the color of the picture (COLOR)

The COLOR settings allow you to adjust the picture's color temperature by changing the color level of the white color field. Colors appear reddish if the temperature is low, and bluish if the temperature is high. This adjustment is useful for matching the monitor's colors to a printed picture's colors.
This setting is stored in memory for all input signals.

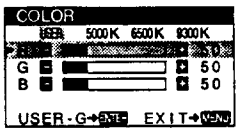
1 **Press the MENU button.**
The main MENU appears on the screen.

2 **Press the +/– buttons to highlight COLOR and press the ENTER button.**
The COLOR menu appears on the screen.

3 **Press the +/– buttons to select a color temperature.**
The preset color temperatures are 5000K, 6500K, and 9300K. Since the default setting is 9300K, the whites will change from a bluish hue to a reddish hue as the temperature is lowered to 6500K and 5000K.

4 **If necessary, fine tune the color temperature.**
First press the +/– buttons to select USER. Then press the ENTER button to select R (red), G (green), or B (blue) and press the +/– buttons to make the adjustment.

US



If you fine tune the color temperature, the new color settings are stored in memory and recalled whenever you select USER.

Additional settings (DEGAUSS/ CANCEL MOIRE)

You can manually degauss (demagnetize) the screen, and cancel the moire.

1 **Press the MENU button.**
The main MENU appears on the screen.

2 **Press the +/– buttons to highlight ⍑ DEGAUSS/ CANCEL MOIRE and press the ENTER button.**
The DEGAUSS/CANCEL MOIRE menu appears on the screen.

3 **Press the ENTER button to select the desired adjustment item.**
Adjust the selected item according to the following instructions.

Degaussing the screen

The monitor is automatically demagnetized when the power is turned on.

To manually degauss the monitor, first press the ENTER button to select ⍑ (DEGAUSS). Then press the + button.

The screen is degaussed for about 5 seconds. If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result.

Cancelling the moire

If elliptical or wavy patterns appear on the screen, adjust the moire cancellation level.

To adjust the amount of moire cancellation, first press the ENTER button to select ◎ (CANCEL MOIRE). Then press the +/– buttons until the moire effect is at a minimum.

* Moire is a type of natural interference which produces soft, wavy lines on your screen. It may appear due to interference between the pattern of the picture on the screen and the phosphor pitch pattern of the monitor.

Example of moire

Resetting the adjustments (RESET)

This monitor has the following two reset methods. Use the RESET menu to reset the adjustments.

1 **Press the MENU button.**
The main MENU appears on the screen.

2 **Press the +/– buttons to highlight ⇢ RESET and press the ENTER button.**
The RESET menu appears on the screen.
Reset the settings according to the following instructions.

Resetting all of the adjustment data for the current input signal (MODE)

Press the – button.

The MODE item is selected. All of the adjustment data for the current input signal is reset.

Note that the following items are not reset by this method:

- on-screen menu language (page 7)
- picture's rotation (page 11)

Resetting all of the adjustment data to factory preset levels (ALL)

Press the + button.

The ALL item is selected. With the exception of the USER settings in the COLOR menu, all of the adjustment data for all input signals is reset to the factory preset levels.

Note

The monitor's buttons will not operate for about 5 seconds when ALL is selected.

Trouble symptoms and remedies

If the problem is caused by the connected computer or other equipment, please refer to the connected equipment's instruction manual. Use the self-diagnosis function (page 16) if the following recommendations do not resolve the problem.

Symptom	Check these items
No picture	
If the ⏻ (power) indicator is not lit	• Check that the power cord is properly connected. • Check that the ⏻ (power) switch is in the "on" position.
If the NO INPUT SIGNAL message appears on the screen, or if the ⏻ (power) indicator is either orange or alternating between green and orange	• Check that the video signal cable is properly connected and all plugs are firmly seated in their sockets (page 6). • Check that the HD15 video input connector's pins are not bent or pushed in. **■Problems caused by the connected computer or other equipment** • The computer is in power saving mode. Try pressing any key on the computer keyboard. • Check that the computer's power is "on." • Check that the graphic board is completely seated in the proper bus slot.
If the OUT OF SCAN RANGE message appears on the screen	**■Problems caused by the connected computer or other equipment** • Check that the video frequency range is within that specified for the monitor. If you replaced an old monitor with this monitor, reconnect the old monitor and adjust the frequency range to the following. Horizontal: 30~70 kHz Vertical: 48~120 Hz
If no message is displayed and the ⏻ (power) indicator is green or flashing orange	• Use the Self-diagnosis function (page 16).
If using Windows 95/98	• If you replaced an old monitor with this monitor, reconnect the old monitor and do the following. Install the Windows Monitor Information Disk (page 7) and select this monitor ("CPD-110GS" or "CPD-210GS") from among the Sony monitors in the Windows 95/98 monitor selection screen.
If using a Macintosh system	• Check that the Macintosh adapter (not supplied) and the video signal cable are properly connected (page 6).
Picture flickers, bounces, oscillates, or is scrambled	• Isolate and eliminate any potential sources of electric or magnetic fields such as other monitors, laser printers, electric fans, fluorescent lighting, or televisions. • Move the monitor away from power lines or place a magnetic shield near the monitor. • Try plugging the monitor into a different AC outlet, preferably on a different circuit. • Try turning the monitor 90° to the left or right. **■Problems caused by the connected computer or other equipment** • Check your graphics board manual for the proper monitor setting. • Confirm that the graphics mode (VESA, Macintosh 16" Color, etc.) and the frequency of the input signal are supported by this monitor (Appendix). Even if the frequency is within the proper range, some video boards may have a sync pulse that is too narrow for the monitor to sync correctly. • Adjust the computer's refresh rate (vertical frequency) to obtain the best possible picture.
Picture is fuzzy	• Adjust the contrast and brightness (page 9). • Degauss the monitor* (page 12). • Decrease the moire cancellation effect (page 12).

Technical Features

Preset and user modes

When the monitor receives an input signal, it automatically matches the signal to one of the factory preset modes stored in the monitor's memory to provide a high quality picture at the center of the screen. (See Appendix for a list of the factory preset modes.) For input signals that do not match one of the factory preset modes, the digital Multiscan technology of this monitor ensures that a clear picture appears on the screen for any timing in the monitor's frequency range (horizontal: 30 – 70 kHz, vertical: 48 – 120 Hz) . If the picture is adjusted, the adjustment data is stored as a user mode and automatically recalled whenever the same input signal is received.

Note for Windows users

For Windows users, check your video board manual or the utility program which comes with your graphic board and select the highest available refresh rate to maximize monitor performance.

Power saving function

This monitor meets the power-saving guidelines set by VESA, ENERGY STAR, and NUTEK. If the monitor is connected to a computer or video graphics board that is DPMS (Display Power Management Signaling) compliant, the monitor will automatically reduce power consumption in three stages as shown below.

Power mode	Power consumption	⏻ (power) indicator
normal operation	≤ 110 W (CPD-210GS) ≤ 105 W (CPD-110GS)	green
1 standby	≤ 15 W	green and orange alternate
2 suspend	≤ 15 W	green and orange alternate
3 active off*	≤ 5 W	orange
power off	0 W	off

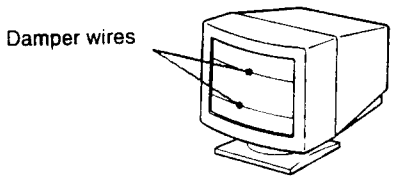
* When your computer enters the "active off" mode, the input signal is cut and NO INPUT SIGNAL appears on the screen. After 20 seconds, the monitor enters the power saving mode.

Troubleshooting

Before contacting technical support, refer to this section.

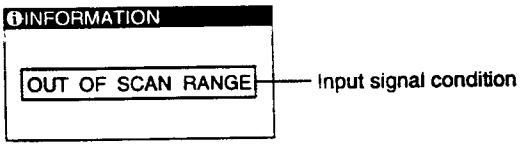
If thin lines appear on your screen (damper wires)

The lines you are experiencing on your screen are normal for the Trinitron monitor and are not a malfunction. These are shadows from the damper wires used to stabilize the aperture grille and are most noticeable when the screen's background is light (usually white). The aperture grille is the essential element that makes a Trinitron picture tube unique by allowing more light to reach the screen, resulting in a brighter, more detailed picture.



On-screen messages

If there is something wrong with the input signal, one of the following messages appears on the screen. To solve the problem, see "Trouble symptoms and remedies" on page 14.



The input signal condition

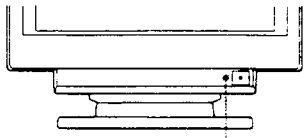
OUT OF SCAN RANGE
indicates that the input signal is not supported by the monitor's specifications.

NO INPUT SIGNAL
indicates that no signal is being input to the monitor.

US

Self-diagnosis function

This monitor is equipped with a self-diagnosis function. If there is a problem with your monitor or computer, the screen will go blank and the ⏻ (power) indicator will either light up green or flash orange. If the ⏻ (power) indicator is lit in orange, the computer is in power saving mode. Try pressing any key on the keyboard.



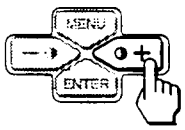
⏻ (power) indicator

If the ⏻ (power) indicator is green

1 Disconnect the video input cable, or turn off the connected computer.

2 Press the ⏻ (power) button to turn the monitor off and on.

3 Press and hold the + button for 2 seconds before the monitor enters power saving mode.



If all three color bars appear (red, green, blue), the monitor is working properly. Reconnect the video input cables and check the condition of your computer.

If the color bars do not appear, there is a potential monitor failure. Inform your authorized Sony dealer of the monitor's condition.

If the ⏻ (power) indicator is flashing orange

Press the ⏻ (power) button to turn the monitor off and on.

If the ⏻ (power) indicator lights up green, the monitor is working properly.

If the ⏻ (power) indicator is still flashing, there is a potential monitor failure. Count the number of seconds between orange flashes of the ⏻ (power) indicator and inform your authorized Sony dealer of the monitor's condition. Be sure to note the model name and serial number of your monitor. Also note the make and model of your computer and video board.

Specifications

CPD-110GS

CRT	0.25 mm aperture grille pitch 15 inches measured diagonally 90-degree deflection
Viewable image size	Approx. 285 × 214 mm (w/h) (11 1/4 × 8 1/2 inches) 14.0" viewing image
Resolution	Horizontal: Max. 1280 dots Vertical: Max. 1024 lines
Standard image area	Approx. 270 × 202 mm (w/h) (10 3/4 × 8 inches)
Deflection frequency*	Horizontal: 30 to 70 kHz Vertical: 48 to 120 Hz
AC input voltage/current	100 to 240 V, 50 – 60 Hz, 1.6 – 0.8 A
Power consumption	Max. 105 W
Dimensions	Approx. 368 × 393 × 389 mm (w/h/d) (14 1/2 × 15 1/2 × 15 3/8 inches)
Mass	Approx. 14 kg (30 lb 14 oz)
Plug and Play	DDC1/DDC2B
Supplied accessories	See page 6

* Recommended horizontal and vertical timing condition
- Horizontal sync width should be more than 1.0 µsec.
- Horizontal blanking width should be more than 3.6 µsec.
- Vertical blanking width should be more than 500 µsec.

CPD-210GS

CRT	0.25 mm aperture grille pitch 17 inches measured diagonally 90-degree deflection
Viewable image size	Approx. 327 × 243 mm (w/h) (12 7/8 × 9 5/8 inches) 16.0" viewing image
Resolution	Horizontal: Max. 1280 dots Vertical: Max. 1024 lines
Standard image area	Approx. 312 × 234 mm (w/h) (12 3/8 × 9 1/4 inches)
Deflection frequency*	Horizontal: 30 to 70 kHz Vertical: 48 to 120 Hz
AC input voltage/current	100 to 240 V, 50 – 60 Hz, 1.7 – 0.9 A
Power consumption	Max. 110 W
Dimensions	Approx. 406 × 431.5 × 420 mm (w/h/d) (16 × 17 × 16 5/8 inches)
Mass	Approx. 18.5 kg (40 lb 13 oz)
Plug and Play	DDC1/DDC2B
Supplied accessories	See page 6

* Recommended horizontal and vertical timing condition
- Horizontal sync width should be more than 1.0 µsec.
- Horizontal blanking width should be more than 3.0 µsec.
- Vertical blanking width should be more than 500 µsec.

Design and specifications are subject to change without notice.

Symptom	Check these items
Picture is ghosting	• Eliminate the use of video cable extensions and/or video switch boxes. • Check that all plugs are firmly seated in their sockets.
Picture is not centered or sized properly	• Adjust the size or centering (page 10). Note that some video modes do not fill the screen to the edges.
Edges of the image are curved	• Adjust the shape of the picture (page 10).
Wavy or elliptical pattern (moire) is visible	• Cancel the moire (page 12). **■Problems caused by the connected computer or other equipment** • Change your desktop pattern.
Color is not uniform	• Degauss the monitor* (page 12). If you place equipment that generates a magnetic field, such as a speaker, near the monitor, or if you change the direction the monitor faces, color may lose uniformity.
White does not look white	• Adjust the color temperature (page 11).
A hum is heard right after the power is turned on	• This is the sound of the auto-degauss cycle. When the power is turned on, the monitor is automatically degaussed for 5 seconds.

* If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result. A humming noise may be heard, but this is not a malfunction.

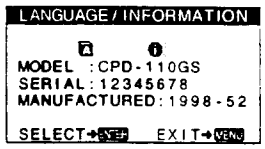
Displaying this monitor's name, serial number, and date of manufacture (INFORMATION)

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the +/– buttons to highlight LANGUAGE/ INFORMATION and press the ENTER button.
The LANGUAGE/INFORMATION menu appears on the screen.

3 Press the ENTER button to select (INFORMATION).
This monitor's information box appears on the screen.

Example



If the problem persists, call your authorized Sony dealer and give the following information.
- Model name: CPD-110GS or CPD-210GS
- Serial number
- Name and specifications of your computer and graphics board.

US

Appendix

Preset mode timing table

No.	Resolution (dots × lines)	Horizontal Frequency	Vertical Frequency	Graphics Mode
1	640 × 480	31.5 kHz	60 Hz	VGA-G
2	640 × 480	43.3 kHz	85 Hz	VESA
3	720 × 400	31.5 kHz	70 Hz	VGA-Text
4	800 × 600	46.9 kHz	75 Hz	VESA
5	800 × 600	53.7 kHz	85 Hz	VESA
6	832 × 624	49.7 kHz	75 Hz	Macintosh 16" Color
7	1024 × 768	60.0 kHz	75 Hz	VESA
8	1024 × 768	68.7 kHz	85 Hz	VESA
9	1280 × 1024	64.0 kHz	60 Hz	VESA

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Sony Corporation

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